



# ICAO ENGINE EXHAUST EMISSIONS DATA SHEET

## SUBSONIC ENGINES

ENGINE IDENTIFICATION: PW1217G BYPASS RATIO: 8.3  
 UNIQUE ID NUMBER: 21PW140 PRESSURE RATIO ( $\pi_{00}$ ): 32.7  
 COMBUSTOR: TALON X  
 ENGINE TYPE: TF RATED THRUST ( $F_{00}$ ) (kN): 75.7

REGULATORY DATA **\*\* DATA SUPERSEDED \*\*** SEE FOLLOWING UID FOR REVISED DATA: **01P22PW169**

CHARACTERISTIC VALUE:	HC	CO	NO <sub>x</sub>	SMOKE NUMBER
D <sub>p</sub> /F <sub>00</sub> (g/kN) or SN	0.1	27.2	44.3	4.8
AS % OF ORIGINAL LIMIT	0.5	23.0	42.0	19.0
AS % OF CAEP/2 LIMIT (NO <sub>x</sub> )			53.0	
AS % OF CAEP/4 LIMIT (NO <sub>x</sub> )			59.0	
AS % OF CAEP/6 LIMIT (NO <sub>x</sub> )			65.0	
AS % OF CAEP/8 LIMIT (NO <sub>x</sub> )			73.0	

### DATA STATUS

- PRE-REGULATION  
 x CERTIFICATION  
 - REVISED (SEE REMARKS)

### TEST ENGINE STATUS

- NEWLY MANUFACTURED ENGINES  
 x DEDICATED ENGINES TO PRODUCTION STANDARD  
 - OTHER (SEE REMARKS)

### EMISSIONS STATUS

x DATA CORRECTED TO REFERENCE  
 (ANNEX 16 VOLUME II)

### CURRENT ENGINE STATUS

(IN PRODUCTION, IN SERVICE UNLESS OTHERWISE NOTED)  
 - OUT OF PRODUCTION (DATE: - )  
 - OUT OF SERVICE (DATE: - )

### MEASURED DATA

MODE	POWER SETTING (%F <sub>00</sub> )	TIME (minutes)	FUEL FLOW (kg/s)	EMISSIONS INDICES (g/kg)			SMOKE NUMBER
				HC	CO	NO <sub>x</sub>	
TAKE-OFF	100	0.7	0.634	0.04	0.30	25.30	3.7
CLIMB OUT	85	2.2	0.524	0.02	0.40	18.60	2.7
APPROACH	30	4.0	0.184	0.01	2.50	8.60	0.4
IDLE	7	26.0	0.069	0.01	14.20	5.10	0.4
LTO TOTAL FUEL (kg) or EMISSIONS (g)			248	5	1678	2891	-
NUMBER OF ENGINES				1	1	1	1
NUMBER OF TESTS				3	3	3	3
AVERAGE D <sub>p</sub> /F <sub>00</sub> (g/kN) or AVERAGE SN (MAX)				0.1	22.2	38.2	3.7
SIGMA (D <sub>p</sub> /F <sub>00</sub> in g/kN, or SN)							
RANGE (D <sub>p</sub> /F <sub>00</sub> in g/kN, or SN)				0.05-0.07	20.8-23.2	37.8-38.4	3.4-4

### ACCESSORY LOADS

POWER EXTRACTION 0 (kW) AT - POWER SETTINGS  
 STAGE BLEED 0 (% CORE FLOW) AT - POWER SETTINGS

### ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	101.2-102.2
TEMPERATURE (K)	276.5-293.2
ABS HUMIDITY (kg/kg)	0.00108-0.00576

### FUEL

SPEC	Jet A
H/C	1.9
AROM (%)	18-18.7

MANUFACTURER: Pratt & Whitney  
 TEST ORGANIZATION: Pratt & Whitney  
 TEST LOCATION: East Hartford, CT  
 TEST DATES: 28/03/2019-01/04/2019

### NO<sub>x</sub> REGULATION PARAGRAPH

	2.3.2 c) (CAEP/4)
	2.3.2 d) (CAEP/6)
x	2.3.2 e) (CAEP/8)

### REMARKS

1. Block C Combustor

Compliance with Fuel Venting requirements: x ('x' if complies, 'PR' if pre-regulation, '-' if information is not available)